

## **BOUQUET CONTAINER**

### **FIELD OF THE INVENTION**

The present invention relates generally to a bouquet container and more particularly to a container including a receptacle for a bouquet and a top flap for selectively covering the bouquet's blossoms and buds so that flowers purchased, for example, at a self-serve station may be wrapped in an attractive container resembling that provided by a professional florist.

### **BACKGROUND OF THE INVENTION**

When a bouquet of flowers is purchased at a floral shop or stand, a professional florist usually wraps the flowers for the purchaser. For example, the florist places the bouquet on a flat sheet of material (paper, plastic, foil, etc.) and the lateral edges of the sheet are wrapped around the bouquet and then held in place with a piece of tape or decorative seal. Since the florist repeatedly performs such a bouquet-wrapping process, the positioning, folding, and sealing of the material becomes a somewhat routine and non-demanding task. Also, the sheets of wrapping material are easily stored in a flat pile or, alternatively, easily cut from a roll of material. By careful wrapping, a florist can provide a pleasing and professional appearance to the flowers.

When a bouquet is purchased from a self-serve stand (such as at a grocery store), it is usually the responsibility of the purchaser to wrap the bouquet. Generally, consumers do not have the skill, time, patience, and/or desire to use the bouquet-wrapping techniques used by professional florists. Containers are therefore commonly provided at the point-of-purchase. The containers are usually stored in a collapsed or flat condition to conserve space. The flat container is opened by the purchaser and the bouquet is placed inside. The containers do not have any way to cover the top of the bouquet when it extends above the upper edge of the container's open top. Moreover, these point-of-purchase containers often resemble the plastic grocery store bags

used in the bulk food section and usually do not complement the flowers with a pleasing and professional appearance.

Accordingly, the inventor appreciated that a need remained for a consumer- friendly floral container which may be used by purchasers to wrap their flowers while at the same time providing the pleasing appearance of a florist-wrapped bouquet.

### SUMMARY OF THE INVENTION

The present invention provides a container having a receptacle for a bouquet and a top flap of sufficient dimensions to fold over the top of the bouquet to close the receptacle. The closure protects the bouquet's blossoms (flowers), buds and foliage, and provides an attractive and secure package. The consumer-friendly floral container of the present invention may be used by a purchaser to wrap flowers while at the same time providing the pleasing appearance of a florist-wrapped bouquet.

More particularly, the present invention provides a plant or bouquet container comprising a receptacle having a top opening for receiving a plant or bouquet therein and a top flap of sufficient dimensions to allow it to cover a plant or bouquet placed within. The receptacle has an upper edge defining the top opening wherein the flap extends at least six inches, at least seven inches, at least eight inches, at least nine inches, at least ten inches, at least eleven inches, and/or at least twelve inches above a portion of the receptacle's upper edge. The height of the top flap is at least 25%, at least 30%, at least 35%, and/or at least 40% of the height of the receptacle.

The containers of the present invention may be mass produced in such a manner that wasted web material is minimized. For example, the container may be formed by two flat, flexible panels sealed together along two adjacent edges, and each of the panels forms half of the receptacle and half of the top flap. The panels are preferably made of a suitable film material such as polyolefins,

polyethylene, polypropylene, polyesters, polyethylene-terephthalate, and/or  
nylons.

The panels may be shaped so that the receptacle has a frustoconical  
shape and the top flap has a triangular or peaked shape when the container is in  
its open or expanded state. Also, the panels may lay flat against each other  
when the container is in a closed or collapsed state. A series of these  
containers may be aligned and stacked in a pack and thereby compactly stored  
until ready for use at a floral stand or shop.

The panels may have the same triangular shape and, more particularly  
have a right triangular shape and, even more particularly, have a right isosceles  
triangular shape. If the panels have a right triangular shape (isosceles or  
otherwise), each panel includes a hypotenuse edge and two mutually  
perpendicular edges. The panels are joined together (such as by a seam and  
more particularly by an essentially permanent watertight seam) along their  
hypotenuse edges and along one of their perpendicular edges.

When the container is opened, the seam joining the perpendicular edges  
extends centrally through the receptacle's front portion and the seam joining the  
hypotenuse edges extends centrally through the receptacle's rear portion and the  
top flap. The panels' unjoined edges define the edges of the container's open  
top and the edges of the top flap. When the container is collapsed, the  
corresponding edges of the panels form the outer edges of the collapsed  
container so that, when closed, the container is triangular.

To make containers according to the present invention, first and second  
webs of a suitable film are overlaid. Essentially permanent and substantially  
watertight seams are then formed between the first and second webs  
corresponding to the desired shape of the panels and the so-seamed webs are  
divided into separate containers. Preferably, the seam-forming steps are  
performed substantially simultaneously with the dividing steps by hot wires  
and/or hot dies. In any event, the containers may be aligned and stacked in a  
collapsed state to form a pack for use by a florist shop or stand.

When the preferred right triangle panel shape (isosceles or otherwise) is used, the seams may be formed so that very little or no web material is wasted. Particularly, webs are provided which have a width corresponding the length of the unjoined perpendicular sides of the panels plus the width of a header.

5 Successive diagonal seams are formed across the webs cutting the webs on the bias as they advance. The individual bias cuts are separated by a distance equal to width of the panels. Transverse seams are then formed between adjacent diagonal seams to form two containers between each pair of diagonal seams. Perforations between the header and the balance of the container may  
10 be made before or after the seam forming operations.

To put a bouquet in a container, the container (which is stored in its collapsed state) is torn from the header and opened to form the receptacle for the bouquet. The bouquet is put into the container's top opening, and the top flap is folded over the opening to protect the bouquet's flowers and buds. The  
15 top flap may be secured in its folded position by, for example, taping it to a front portion of the receptacle. Very advantageously, a retailer may provide the containers so that a consumer at the point-of-purchase of the bouquet can open the container and place the bouquet inside. A dispenser may be located near the bouquet selection site for storage of the flat containers. The dispenser may  
20 comprise one or more hooks which pass through holes in the headers to hang a pack of the containers for easy access by a florist or consumer.

These and other features of the invention are fully described and particularly pointed out in the claims. The following description and drawings set forth in detail certain illustrative embodiments of the invention; the embodiments  
25 being indicative of but a few of the various ways in which the principles of the invention may be employed.

### DRAWINGS

Figure 1 is a perspective view of a container 10 according to the present invention, the container 10 being shown in an open condition.

Figure 2 is a perspective view of the container 10 in a closed condition.

5      Figures 3a and 3b are front views of panels used to form the container 10.

Figure 4 is a front view of the container 10 in a flattened condition.

Figure 5 is a schematic side view of a method of making a plurality of the bouquet containers 10.

10      Figures 6a - 6d are top schematic views showing the preferred sequential placement of seams during the container-making method.

Figures 7a-7d are schematic views of a bouquet wrapping system according to the present invention.

Figure 8 is a perspective view of the container 10 used to hold a potted plant instead of a bouquet.

15      Figure 9 is a perspective view of a container 110 according to another embodiment of the present invention, the container being shown in an open condition.

Figure 10 is a perspective view of the container 110 in a closed condition.

20      Figures 11a and 11b are front views of panels 130a and 130b used to form the container 110.

Figure 12 is a front view of the container 110 in a flattened condition.

Figure 13 is a perspective view of a container 210 according to another embodiment the present invention, the container being shown in an open condition.

25      Figure 14 is a perspective view of the container 210 in a closed condition.

Figure 15 is a front view of a panel used to form the container 210.

### DETAILED DESCRIPTION

Referring now to the drawings, Figures 1 and 2 show a container 10 according to the present invention. When the container 10 is opened as shown

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a: →

in Figure 1, a bouquet 14 may be put into the container through its open top 12. Once the bouquet <sup>open top</sup> 12 is placed in the container 10, the container may be closed as shown in Figure 2 to protect the flowers, buds and foliage of the bouquet 14. The bottom end 16 of the container 10 may be open or closed.

5 The container 10 may conveniently be considered as including a receptacle 20 and a top flap 22. The receptacle 20 and top flap 22 are separated only by a fold line located approximately along dashed line 26 in Figure 1. The receptacle 20 has a conical shape and its top front edge partially defines the open top 12 of the container 10. The bottom end of the receptacle 10 20 forms the bottom end 16 of the container 10 and may be closed (as shown) or open.

*Sub 92* → The top flap 22 has a roughly triangular shape. In the open position shown in Figure 1, the top flap 22 extends upward from the fold line 26 at their upper rear edges of the receptacle 20 and defines the rear section of the open end <sup>open top</sup> 12 of the container 10. In the closed position shown in Figure 2, the top flap 22 is folded along fold line 26 over the container's top opening and secured to the front of the receptacle by, for example, a piece of tape 24.

The top flap 22 is large enough to allow it to be folded over the container's top opening and secured to the front of the receptacle. Particularly, the top flap 22 has a height (measured as the difference between the length of the front seam 44 and back seam 42) of at least six inches, at least seven inches, at least eight inches, at least nine inches, at least ten inches, at least eleven inches, and/or at least twelve inches, and this height is at least equal to 25% of the height of the receptacle 20, at least 30% of the height of the receptacle 20, at 25 least 35% of the height of the receptacle 20, and/or at least 40% of the height of the receptacle 20, all depending on the size of the bouquet or plant for which the container is intended.

*Sub 93* → The receptacle 20 and the top flap 22 are formed by a pair of panels 30a and 30b shown in Figures 3a and 3b. The panels <sup>NS</sup> 30 may be transparent, translucent, or opaque and/or printed or plain. They are preferably made from a

film that is, for example, 0.5 mil to 10 mil thick, for example 1.6 mil thick of 2.0 mil thick. The panels 30 may be treated (*i.e.*, printed) with a high-gloss ink on one surface, these treated surfaces preferably forming the exterior of the container 10. Suitable films include polyolefins (particularly polyethylene and polypropylene), polyesters (particularly polyethylene-terephthalate), and nylons. Further, the panels 30a and 30b may be formed from a single layer of sheet material as shown, or one or both of them may be formed of two or more layers to achieve a multi-walled container. Various aesthetic effects can be achieved. For example, an outer layer may be partially or wholly transparent so as to reveal at least partially the adjacent layer.

*Sub a\** The panels 30a and 30b preferably have the same right triangular shape so that their edges 32a and b, 34a and b and 36a and b correspond to each other. In the illustrated embodiment, the panels 30a and 30b have a right isosceles triangular shape. Accordingly, the panel 30a includes a hypotenuse side 32a and sides 34a and 36a (Figure 3a) and the panel 30b includes a hypotenuse side 32b and sides 34b and 36b (Figure 3b). When the container 10 is in a flattened or collapsed state, as is shown in Figure 4, the panels 30 lay flat against each other and are attached together along their hypotenuse edges <sup>NS</sup>32 by a seam 42 and along their perpendicular edges <sup>NS</sup>34 by a seam 44.

Referring now back to Figures 1 and 2, the receptacle 20 and flap 22 develop when the container 10 is opened from the closed, flat state in which it is manufactured. As the two seams 42 and 44 are brought toward each other, the lower portion assumes a cone shape to form the receptacle 20. The top edge (defined by the edges 36a and 36b) open to an almond shape when viewed from above. As the tip 46 of the top edge is folded over toward the front seam 44, the fold line 26 across the back forms and the opening of the top flattens some. At that point tip 46 can be taped in place as shown in Figure 2. Accordingly, when the container 10 is in its expanded state, the panel 30a forms the left-hand half of the receptacle 20 and the left-hand half of the flap 22, that is, the sections to the left of seams 42 and 44. Similarly, the panel 30b forms the right-hand half of

the receptacle 20 and the right-hand half of the flap 22, that is, the sections to the right of seams 42 and 44. The unattached or unseamed sides 36a and 36b form the edges of the container's open top 12 and the outer edges of the top flap 22.

5 A preferred method of making the bouquet container 10 is schematically shown in Figure 5. In this method, two webs 50a and 50b are provided and each of the webs has a width equal to the desired length of the panels' joined perpendicular edges 34 plus the width of a header 48. The webs 50 preferably each have a treated (*i.e.*, printed) surface and an untreated surface and are positioned to overlay each other with their untreated surfaces facing each other and off set by the width of the header 48. The webs 50 are then intermittently advanced, in timed sequence, to sealing bars 52 and 53. The sealing bars 52 and 53 mount hot wires or hot dies that form the seams 42 and 44, respectively, and simultaneously divide the supported webs into a plurality of containers 10. These containers 10 are collected in a mass, typically in a pack 54 in which the containers 10 are similarly aligned and stacked for use by a florist shop or stand.

The seams 42 and 44 created by the sealing stations are preferably leak-resistant and/or are preferably essentially water tight, permanent seams. In the context of the present invention, an "essentially permanent seal" refers to a heat-seal, weld, or any other appropriate type of seam which cannot be disrupted without damaging the film adjacent to the weld or without incurring a high risk of doing so. Further details of suitable methods for effecting such essentially permanent seams are disclosed in U.S. Patent No. 5,647,168, the entire disclosure of which is hereby incorporated by reference.

25 When the preferred right triangle panel shape (isosceles or otherwise) is used, the seams 42 and 44 may be placed so that a minimum of web material is wasted during the container-making process as is best shown in Figures 6a and 6b. Particularly, the seams 44 are placed perpendicular to the direction of movement of the webs 50a and 50b. The seams 42 are diagonally placed between adjacent transverse seams 44 to form two containers 10 therebetween.



In the illustrated seaming process, the sealing bars 52 and 53 are positioned to form the containers 10 which are right isosceles triangles. To make trapezoidal shaped floral containers (wherein one web forms the front of the receptacle and the other web forms the rear of the receptacle), the bars 52 and 53 would be slanted towards each other to form the desired trapezoidal shape. According to the present invention, the trailing sealing bar 52 is positioned so that it is transverse to the web direction and the leading sealing bar 53 is positioned so that it is slanted in a 45° angle in the web direction. The nearest ends of the sealing bars 52 and 53 (the bottom ends in the illustrated views) are separated from each other by a distance (measured in the direction of web travel) equal to the length of the unjoined edge of the panel 10.

In the illustrated seaming process, the sealing bar 53 initially is pressed downward and forms a first slanted seam 42a across the width of the web 50 as shown in Figure 6a. Then the web 50 advances a distance equal to the length of the unsealed edges 36b (Figures 1, 3, and 4). Next, the sealing bar 53 forms a second slanted seam 42b and simultaneously the sealing bar 52 forms a first transverse seam 44a. (Figure 6b.) The process is repeated to form successive containers. Figures 6c and 6d.

Transverse seam 44a intersects the seam 42a and so forms a sealed bottom to the container 10. If an open bottom container is desired, then the spacing between sealing bars 52 and 53 is increased. This leaves an opening in the bottom of the container.

In some manufacturing processes the headers 48 located at the top and bottom are used to advance the webs 50a and 50b under the sealing bars 52 and 53. In this case an opposing pair of endless belts may grip the edges of the webs to propel them through the machine. These belts may prevent either of the sealing bars 52 and 53 from extending the full width of the webs. In such a case appropriately spaced notches may be cut in the margins of the web up stream of the sealing bars. The notches serve to complete the cuts truncated by the presence of the belts.

*Sw 2b*

As noted above the webs 50a and 50b, which form the container 10, are superimposed prior to being cut, and are offset by the width of the header 48. In addition, a line of perforations 54<sup>pack</sup> (best shown in Figures 7a, b, and c) is formed in the webs to allow easy separation of the header. The perforations may be made before or after the containers pass the sealing bars 52 and 53 and are made by conventional means.

One may now appreciate that the container 10 of the present invention provides a receptacle 20 for a bouquet 14 and a top flap 22 for protection of the bouquet's flowers and buds. The container 10 may be compactly stored at a point-of-purchase floral stand in a collapsed state and then expanded for use upon purchase of a bouquet. Storage and dispensing of the containers 10 may be facilitated by a bouquet wrapping system, such as the system 80 shown schematically in Figures 7a-7c. The system 80 is particularly suited for consumer use at a help-yourself floral stand, such as at a grocery store. However, the containers 10 and/or the system 80 may also be used by a professional florist and situated behind the counter.

The system 80 includes a stand 82 on which a pack 54 of the containers 10 are hung for easy access. (Figure 7a.) In the illustrated system 80, the stand 82 includes a pair of hooks 84 and each of the containers 10 in the pack 54 includes a removable strip or header 86. The header 86 has two openings for insertion of the stand's hooks 84 therethrough and is removably attached to the unjoined perpendicular edge 36b of the panel 30b.

When a bouquet 14 is to be wrapped, the front-facing panel 30a is pulled forward to expand the container 10. (Figure 7b.) The bouquet is then inserted into the open top 12 of the container and dropped into the receptacle 20. (Figure 7c.) If the bouquet 14 has a front and back side, its back side should be placed adjacent the hypotenuse seam 42 rather than the perpendicular seam 44 so that bouquet 14 will be properly oriented in the container 10. The container 10 is then pulled forward relative to the stand 82 thereby detaching from the strip 86. (Figure 7d.) The cover flap 22 may then be folded over the container's top

opening and secured to the front of the receptacle 20 by, for example, tape 24.  
(See Figures 1 and 2.)

In addition to bouquets 14, the container 10 may also be used to wrap a potted plant 70 as is shown in Figure 8. When used in this manner, the bottom conical end portion of the receptacle 20 is crushed or folded against the flat bottom of the potted plant 70. The cover flap 22 is folded over the plant and secured to the front of the receptacle by, for example, tape 24.

Referring now to Figures 9 and 10, another bouquet container 110 according to the present invention is shown. When the container 110 is in the open condition shown in Figure 9, it has an open top 112 for insertion of a bouquet 114 therein. Once the bouquet 112 is inserted, the container 110 may be placed in the closed condition shown in Figure 10 to protect the flowers and buds of the bouquet 114. The bottom end 16 of the container 10 may be open or closed and may be secured with a ribbon 118.

The container 110 comprises a receptacle 120 and a top flap 122. The receptacle 120 has a conic shape and its top front edge partially defines the open insertion top 112 of the container 110. The bottom end of the receptacle 120 forms the bottom end 116 of the container 110 and may be opened or closed and/or may be secured with the ribbon 118.

The top flap 122 has a triangular shape and is coextensive with the upper rear edges of the receptacle 120. In the open position shown in Figure 9, the top flap 122 extends upwardly from the upper rear edges of the receptacle 120 and defines the rear sections of the open insertion end of the container 110. In the closed position shown in Figure 10, the top flap 122 is folded over the container's top opening and secured to the front of the receptacle by, for example, a seal 124.

Thus, the top flap 122 has dimensions sufficient to allow it to be folded over the container's top opening and secured to the front of the receptacle. Particularly, the top flap 122 has a height (measured from the upper edge 136a of the open top 112) of at least six inches, at least seven inches, at least eight

inches, at least nine inches, at least ten inches, at least eleven inches, and/or at least twelve inches and this height is at least equal to 25% of the height of the receptacle 120, at least 30% of the height of the receptacle 120, at least 35% of the height of the receptacle 120, and/or at least 40% of the height of the receptacle 120.

5 The receptacle 120 and the top flap 122 are formed by a pair of panels 130a and 130b shown in Figures 11a and 11b. The panels 130 may be formed of the same material as the panels 30 discussed above. The panel 130a has an isosceles triangular shape and thus has equal lateral sides 132a and 134a and a third side 136a. The panel 130b has diamond shape with bottom lateral sides 132b and 134b and top sides 136b. When the container 110 is in a flattened or collapsed state, as is shown in Figure 12, the panels 130 lay flat against each other and are attached together along their edges 132 by seam 142 and along their edges 134 by seam 144. When the container 110 is in its expanded state, the panel 130a forms the front of the receptacle 120 and the panel 130b forms the rear of the receptacle 120 and the flap 122.

Referring now to Figures 13 and 14, another bouquet container 210 according to the present invention is shown. When the container 210 is in the open condition shown in Figure 13, it has an open top 212 for insertion of a bouquet 214 therein. Once the bouquet 212 is inserted, the container 210 may be placed in the closed condition shown in Figure 14 to protect the flowers and buds of the bouquet 214. The bottom end 216 of the container 210 may be open or closed and may be secured with a ribbon 218, for example.

The container 210 comprises a receptacle 220 and a top flap 222. The receptacle 220 has a frustoconical shape and its top front edge partially defines the open insertion top 212 of the container 210. The bottom end of the receptacle 220 forms the bottom end 216 of the container 210.

The top flap 222 has a triangular shape and is coextensive with the upper rear edges of the receptacle 220. In the open position shown in Figure 13, the top flap 222 extends upwardly from the upper rear edges of the receptacle 220

and defines the rear sections of the open insertion end of the container 210. In the closed position shown in Figure 14, the top flap 222 is folded over the container's top opening and secured to the front of the receptacle by, for example, a seal 224.

Thus, the top flap 222 has dimensions sufficient to allow it to be folded over the container's top opening and secured to the front of the receptacle. Particularly, the top flap 222 has a height (measured from the non-coextensive upper end of the seam 232b) of at least six inches, at least seven inches, at least eight inches, at least nine inches, at least ten inches, at least eleven inches, and/or at least twelve inches and this height is at least equal to 25% of the height of the receptacle 220, at least 30% of the height of the receptacle 220, at least 35% of the height of the receptacle 220, and/or at least 40% of the height of the receptacle 220.

The receptacle 220 and the top flap 222 are formed from a single panel 230 shown in Figure 15. The panel 230 may be formed of the same material as the panels 30/130 discussed above. The panel 230 has a bottom triangular shape with sides 232a and 232b, an upper triangular shape with sides 234a and 234b, and sides 236a and 236b extending between sides 232a and 234a and between sides 232b and 234b, respectively. In the completed container 210, the sides 232a and 232b are joined together in a seam 242, the sides 234a and 234b form the top flap 222, and the sides 236a and 236b form the front edge of the top opening 122.

One may now appreciate that the present invention provides a container 10/110/210 having a receptacle 20/120/220 for a plant and a top flap 22/122/222 of sufficient dimensions to fold over the top of the plant to close the receptacle. The plant container 10/110/210 of the present invention may be used, as illustrated, as a container for a bouquet 14/114/214 and/or a potted plant 90. The container 10/110/210 may be additionally or alternatively used with non-bouquet cut plants, silk flowers, dried flowers, and any other type of plant product for which a container is desired.

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